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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,285	03/26/2004	Itsuki Kajino	P/1250-274	2166
2352	7590	10/04/2006	EXAMINER	
OSTROLENK FABER GERB & SOFFEN			MACARTHUR, SYLVIA	
1180 AVENUE OF THE AMERICAS				
NEW YORK, NY 100368403			ART UNIT	PAPER NUMBER
			1763	

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/811,285	KAJINO ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Sylvia R. MacArthur	1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 26 March 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 3-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 3-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 26 March 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Terminal Disclaimer***

1. The terminal disclaimer filed on 5/25/2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Serial Number 10/659,213 has been reviewed and is accepted. The terminal disclaimer has been recorded.
2. The request filed on 5/25/2006 for an RCE is acceptable and an RCE has been established. An action on the RCE follows.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.  
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 3-5, 7-11, and 13-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kajino et al (US 6,793,769).

Regarding claims 3, 9, and 15: Kajino et al teaches a substrate processing apparatus. The apparatus comprises a holding element (holding pins 4), a rotation element (plate-like spin base 3), an atmosphere cutoff plate (atmosphere shielding part

60), a splash prevention element including recovery ducts 22a-c, a plurality of guiding members (30) and a selection element as discussed in col. 6 lines 53-col. 7 line 26.

Kajino et al further teaches the spacing of the guide members in col.6 lines 46-65. A discussion of the use of the selection element is cited in col. 6 line 53- col. 7 line 52. The proximity of the guiding member, recovery duct cut off plate, and rotating base is illustrated in Fig.1 and col. 10 lines 4-14.

Regarding claims 4, 10, and 16: See Fig. 1.

Regarding claims 5, 11, and 17: See element 23 of Fig.1.

Regarding claims 7 and 13: The rotating base and atmosphere cut-off plate each have a disk-like shape and the edge portions facing recovery ducts are vertical side surfaces see Fig. 1 that spin chuck 1 has a plate-like disk-like shape and the respective edge portions facing a plurality of recovery ducts are vertical side surfaces see col. 5 line 35, see also Fig.1

Regarding claims 8 and 14: See Fig. 1.

Note the height of the guide member is adjustable and thus setting the height “not higher” than the level of a top surface of the atmosphere cutoff plate is a matter of an intended use and the apparatus of Kajino is inherently capable of meeting this limitation.

5. Claims 3-5, 7-11, and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Adachi Hideki (JP 11-087294).

Hideki teaches a substrate processing apparatus. The apparatus comprises a holding element (substrate attachment components 4), a rotation element (spin base 3), an atmosphere cutoff plate (atmosphere shielding member 60), a splash prevention element

including recovery ducts 22a-c, a plurality of guiding members (30) and a selection element as discussed in section [0044].

Regarding claims 3, 9, and 15: Hideki teaches the spacing of the guide members in the abstract. A discussion of the use of the selection element is cited in section [0044] and in claim 3. The proximity of the guiding member, recovery duct cut off plate, and rotating base is illustrated in Figs.1 and 7, see also the abstract.

Regarding claims 4, 10, and 16: See Fig. 1.

Regarding claims 5, 11, and 17: See Fig.1.

Regarding claims 7 and 13: The rotating base and atmosphere cut-off plate each have a disk-like shape and the edge portions facing recovery ducts are vertical side surfaces see Fig. 1 that spin chuck 1 has a plate-like disk-like shape and the respective edge portions facing a plurality of recovery ducts are vertical side surfaces see Fig.1

Regarding claims 8 and 14 See Fig. 1.

Note the height of the guide member is adjustable and thus setting the height “not higher” than the level of a top surface of the atmosphere cutoff plate is a matter of an intended use and the apparatus of Hideki is inherently capable of meeting this limitation.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6, 12, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adachi Hideki in view of Tsuchiya et al (6,810,888).

The teachings of Hideki were discussed above.

Hideki fails to teach a suck element.

Tsuchiya et al teaches a sucking element in col. 7 lines 9-38 and col. 8 lines 33-55. The motivation to provide the sucking element in the recovery ducts is it ensures a reduced pressure to be maintained in the fluid flow paths 36.

Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to provide a suck element in the recovery ducts as taught by Tsuchiya et al in the apparatus of Hideki et al.

#### ***Response to Arguments***

8. Applicant's arguments filed 5/26/2006 have been fully considered but they are not persuasive. The height of the guide members of the prior art of Kajino et al (see Figs. 5A-5C) and Hideki et al (see Figs. 2 and 7) are adjustable and thus are inherently capable of meeting the claim limitations of 3, 9, and 15.

It is noted that applicant makes several arguments that are not reflected in the claims and thus were not considered in the art rejections, namely the thickness of the cutoff plate and the discussion of a-c on page 10 in the remarks. Nevertheless, it is the dimensions of the cutoff plate would be considered a matter of optimization as it is well settled that the determination of optimum values of cause effective variables such the process parameters is within the skill of one practicing in the art. *In re Boesch*, 205 USPQ 215 (CCPA 1980).

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R. MacArthur whose telephone number is 571-272-1438. The examiner can normally be reached on M-F during the hours of 8:30 a.m. and 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sylvia R MacArthur  
Patent Examiner  
Art Unit 1763

October 1, 2006